

Vascular Plants of Williamson County
Euphorbia corollata – FLOWERING SPURGE [Euphorbiaceae]

Euphorbia corollata L., EASTERN FLOWERING SPURGE. Perennial herb, at top of rootstock with short, vertical, rhizomelike caudex, not rosetted, 1–several-stemmed at base, several-forked in canopy (“dichotomously branched”), when woody and 1-stemmed erect, in range to 85 cm tall; monoecious; shoots with only cauline leaves, lower leaves absent at flowering, leaves ± dimorphic the primary axis with much larger and spreading blades than small and ascending blades on lateral axes, cauline leaves in canopy often green with white margins and tip (variegated), glabrous; latex milky; caudex covered with light orangish brown periderm and having vertical cracks descending from each cataphyll scar and with a white axillary bud at midpoint of scar, internodes 1–2.5 mm long. **Stems:** cylindrical, to 8 mm at ground level, young portion green and photosynthetic, leaf scars narrow ca. 3 mm long, near ground large stem often reddish with vertical linear to narrowly fusiform lenticels, belowground white with leaf (cataphyll) scars helically alternate and 4–10 apart and each having an appressed, flattened, deltate axillary bud. **Leaves:** helically alternate (lower plant) and opposite decussate to pseudowhorled (to 5 leaves) at top of principal stem subtending flowering canopy and opposite decussate within flowering canopy, simple, sessile, with stipules; stipules (0–)2, minute conic, < 0.2 mm long, initially strawberry red drying light brown; petiole broadly and shallowly channeled (conforming to axillary bud), to 1 mm long, pale green and glaucous; blade elliptic or lanceolate to oblong or oblanceolate, 15–49 × 4–12 mm, broadly tapered at base, entire and rose-red on margins (somewhat wavy), rounded to obtuse or slightly notched at tip, pinnately veined with midrib raised and lateral veins slightly raised on lower surface, ± glaucous. **Inflorescence:** cyathium (= involucre with staminate flowers or staminate flowers and 1 pistillate flower), each stalked, initially cymelike with a central cyathium surrounded by a pseudowhorl of 3–5 shorter, dichasial cymes each having 3 cyathia, the earliest cymes with only staminate cyathia, later forming bisexual cyathium, at upper forks central cyathium sometimes aborted, bracteate; bracts pseudowhorled at first node of inflorescence subtending lateral stalks leaflet (sometimes central stalk also with bract), sessile, elliptic to narrowly ovate, to 5 × 2 mm, green or white near tip, subsequent bracts often 2 and opposite, smaller and green and white variegated and 1-veined; on robust plants the stalk of the first central flower to 12 mm × 0.3 mm and lateral stalks to 10 mm long; **involucre** bell-shaped, 1.5–2 × 1.5–1.8 mm, light yellow-green, glabrous, with 5 bracts and 5 glands; bracts fused most of length, with fringed, hand-shaped free tips 0.5–0.7 mm long greenish and white initially appressed to top of cyathium concealing anthers, having a ring of short hairs around inner rim; glands alternate with bracts, nectar-producing, raised, elliptic to somewhat kidney-shaped, 0.3–0.4 × 0.7–1 mm, fleshy, light yellow-green, slightly concave along centerline, appendaged just below gland, the appendage widely spreading, petal-like, fan-shaped to obovate symmetric or slightly asymmetric at tip, 2.6–3.5 × < 2–3 mm, on a cyathium often unequal in widths, white but on lower surface greenish at base, with wrinkled lines radiating from gland, slightly overlapping near base, not scalloped on outer margin, glabrous; staminate flowers 15–25 in 5 clusters of 3–5, each with pedicel-like stalk, each cluster subtended by a bractlet; bractlet fan-shaped feathery and hairy (stigmatalike), 1–1.5 mm long, whitish; pedicel of staminate flower cylindrical, < 1 mm long, white; pistillate flower

on a pedicel-like stalk (gynophore), at anthesis gynophore erect and ca. 1×0.35 mm increasing to $>$ cyathium in fruit, with styles initially exposed from involucre, soon gynophore elongating 3–4 \times , strongly bent, and having mature ovary fully exerted. **Staminate flower:** reduced to 1 stamen; filament defined by conspicuous constriction from pedicel and wider than pedicel, to 1 mm long, exerted and widely spreading at top of cyathium, white; anther sacs dorsifixed, strongly dithecal, 0.35–0.5 mm long, light yellow or tinged purplish red, longitudinally dehiscent oriented with suture horizontal; pollen yellow. **Pistillate flower:** radial, 2 mm across; **perianth** absent; **stamens** absent; **pistil** 1; ovary superior, subspheroid (weakly 3-lobed), 1×1 mm, green, glabrous, 3-chambered, each chamber with 1 ovule; styles 3, fused at base, 3-parted to midpoint and somewhat folded, each branch 2-forked above midpoint, pale green, branches spreading, 1 mm long, upper portions arching later recurved, 0.25–0.3 mm diameter, not papillate. **Fruit:** capsule, 3-seeded, conspicuously 3-lobed, $3.2\text{--}3.5 \times 3.8\text{--}4$ mm, light brown minutely textured, elastically dehiscent along septa and chambers into 6 dry valves with valve pairs remaining attached at base, flexing and expelling seeds. **Seed:** broadly ovoid, $2.1\text{--}2.4 \times 1.6\text{--}1.8$ mm, black beneath frosty-white epidermis, seed coat minutely beaded, beneath epidermis with vertical rows of circular depressions, having 1 fine vertical groove base-to-tip.

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